

REMARKS

The Office Action dated July 12, 2005, has been received and carefully noted. The following remarks are submitted as a full and complete response thereto. Claims 14-19 are presently pending in the application, and respectfully are submitted for consideration.

Rejections under 35 U.S.C. 103(a)

Claims 14-19 were rejected under 35 U.S.C. 103(a) as obvious over U.S. Patent No. 5,218,713 of Hammer et al. ("Hammer") in view of U.S. Patent No. 5,153,909 of Beckle et al. ("Beckle"). The Office Action states that Hammer teaches all the elements of independent claim 14 except "receiving with the second process from the first process a notification that the requested service concerns a service to be refreshed." Applicant respectfully suggests that the claims recite subject matter that is neither disclosed nor suggested in the prior art of record.

Independent Claim 14, upon which claims 15-19 depend is directed to a procedure for interprocess data transfer in a telephone exchange system in which processes transmit messages between themselves in order to provide services between processes and in which a first process requests a service from a second process, which the second process, based on the request, starts providing the service to the first process and terminates the service when a predetermined condition is fulfilled. The procedure includes receiving with the second process from the first process a service request comprising service parameters and a notification that the requested service concerns a service to be

refreshed. The procedure also includes saving, with the second process, the service parameters. The procedure further includes terminating the service when the predetermined criterion has been fulfilled. The procedure additionally includes receiving with the second process from the first process a service refresh request without any service parameters, the service refresh request relating to the previously requested service.

A benefit of certain embodiments of the invention is that they enable refreshing the service any time even if it has been previously terminated. They thus further simplify removing and reintroducing services especially in failure and overload situations. A further advantage of certain embodiments of the present invention is that the service refresh request, as having no service parameters, also simplifies the communication process between the first process and the second process. It is respectfully submitted that the cited art of Hammer and Beckle, when viewed singly or when combined, fails to disclose or suggest all the elements of any of the presently pending claims. The prior art, therefore, fails to provide the critical and unobvious advantages described above.

As explained in previous communications, Hammer relates to a distributed data management mechanism for handling a data stream. Hammer describes providing management of data with minimum data transfer between processes executing work requests. Referring to Figure 1 of Hammer, inter process communication facility (IPCF) 30 is provided within processor A and processor B at 30 and 32, respectively. Communication between processes A and B is performed by sending and receiving

messages over a connection between each other as established by IPCF 30. Figure 2 of Hammer shows a requestor process 50 that sends a work request and a server process 52 that serves the work request. Data from the work request messages may be saved in a data storage, such as requestor storage 58. The work request contains an actual command and any parameters. When server process 52 is finished with the work request, and all data has been transferred, server process 52 presents a final Send Response verb to IPCF 57 that transfers data structures to IPCF 55 local to requestor process 50. Requestor process 50 generates a response note that is placed on queue 54 for requestor process 50. In a PASS mode, the data access control function makes an intermediate copy of the data sent in storage available to either IPCF involved in the communication so that the sender's storage is available for reuse immediately. The sending program, or requestor process 50, desires to reuse this storage immediately and not have to wait until receiving program 52 completes working on the data.

Furthermore, Hammer generally describes a data management mechanism in which minimum data transfer is provided when processes execute work requests. The first process (the requestor of Fig. 2) sends a work request (including a command and its parameters) and optionally data, which the second process (server process of Fig. 2) serves. The server process receives the data from the requestor process as needed. To receive the data associated with a particular work request, the server sends an appropriate request to the requestor process (i.e. the second process sends the request to the first process). When the server is finished with the work request and all data has been

transferred, it sends a message to the requestor process indicating that the work request has been completed and that the data resulting from the work request is now available. As previously noted and as admitted in the Office Action, there is no service refresh request of any kind in Hammer. The work request or the sent data may be stored in the first process' (the requestor's) requestor storage. However, the service parameters of the work request are not saved by the second process (the server).

As explained in previous communications, Beckle relates to resource control and data handling for central office based automatic call distributors. An automatic call distributor (ACD) system arrangement provides resource control and call event data processing services for a plurality of ACD systems. According to Beckle, a special event and control link processor (ECL) provides end-user call event data processing services and end-user resource control to one or more management information system (MIS) data processors. The ECL receives, partitions, and transmits call event messages to one of the MIS processors, and screens resource control messages from the MIS processors. A message is sent using an interface arrangement between the ECL and the recipient MIS processor that establishes a virtual link, and periodically executes a hand shaking protocol over that link for ensuring that the link is still operational. Referring to Figures 1 and 2 of Beckle, event link control process 1450 uses a "heartbeat" hand shaking protocol to monitor the status of event message links. This protocol uses heartbeat/keep alive messages to verify communication paths between ECL 1000 and SM 2500 and MIS processors 3000, 3100 and 3200.

Furthermore, messages in Beckle are sent between the ECL and the MIS by using an interface arrangement in which a handshaking protocol is executed periodically to ensure that the link between the processes is still operational. The keep alive/heart beat messages of Beckle et al. merely check whether the link between MIS processors and the ECL is still operational, and they do not refresh any service. The messages maintain a continuous connection between the ECL and the MIS processors but they do not sustain or restart a service, hence there are no service requests without service parameters introduced in Beckle et al.

In certain embodiments of the present invention, to restart the service again after it has once been terminated is performed by sending a service refresh request. In the service refresh request the first process sending the refresh request does not need to include the service parameters again but the service can simply be started based on the previously transmitted service parameters. When receiving a service refresh request without service parameters from the first process, the second process uses the previously saved service parameters.

Claim 14 recites “receiving with the second process from the first process a service refresh request without any service parameters, the service refresh request relating to the previously requested service.” Hammer and Beckle do not teach at least this element of claim 14. The Office Action admits that Hammer does not teach this element. Beckle does not remedy the deficiencies of Beckle.

Beckle does not teach or suggest “receiving with the second process from the first

process a service refresh request without any service parameters, the service refresh request relating to the previously requested service.” The Office Action cites Col. 5, l. 57- Col. 6, l. 2 of Beckle as teaching this element. Beckle, however, is not talking about refreshing anything. Beckle states that the “heartbeat/keep alive” messages are sent “to verify communications paths.” If the queried receiver fails to return a heartbeat message to the originator, the originator initiates data link recovery actions. That is not “receiving with the second process from the first process a service refresh request without any service parameters, the service refresh request relating to the previously requested service.” First, the heartbeat message is not a service refresh request, it is a message to determine connectivity. Second, the heartbeat message does not relate to a previously requested service. It is part of a handshake procedure, and relates to messages about to be received, as can be seen in Col. 6, l. 48-50. Accordingly, Beckle does not remedy the deficiencies of Hammer by teaching or suggesting “receiving with the second process from the first process a service refresh request without any service parameters, the service refresh request relating to the previously requested service.”

Miscellaneous

The Office Action states that the claims are broad because of language such as “first process”, “second process”, “procedure” and “service.” Applicant notes that the use of such generic terms may help to avoid importing unnecessary limitations into the claims. Additionally, in view of the other limitations in the claims themselves, the claims are not overly broad. Finally, Applicant respectfully notes that the terminology used is

appropriate, given the state of the art, as illustrated by Hammer.

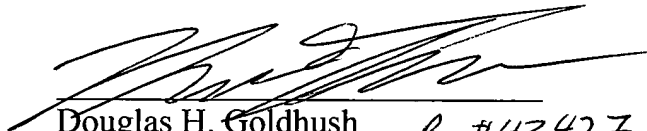
Conclusion

In view of the arguments and amendments above, it is respectfully submitted that each of claims 14-19 recites subject matter that is neither disclosed nor suggested in the cited art. Applicant therefore respectfully requests that all of claims 14-19 be allowed, and that this application be passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicant's undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,


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